

ECONOMICS OF CLOTH PRINTING IN THE DECENTRALISED SECTOR

A Study of Handprinting in

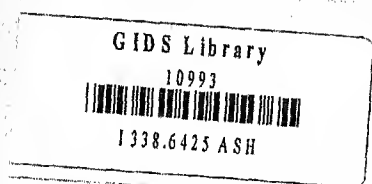
JETPUR (Gujarat)

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M. S. ASHRAF



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GIRI INSTITUTE OF DEVELOPMENT STUDIES
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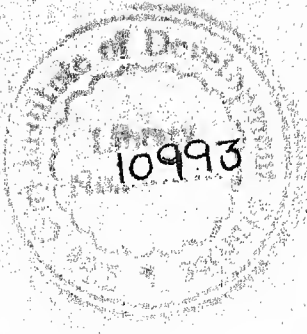
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TEXTILE HAND PRINTING INDUSTRY OF JETPUR

General Characteristics

The handprinting of textiles in Jetpur of district Rajkot (Gujarat) started about fifty years back, i.e. in the year 1930. Initially, only dyeing of cloth was done by a few dyers but gradually they shifted to cloth printing through the process of block printing. The growth of the industry in the beginning was very slow as there was lack of adequate 'know-how' of dye-mixing and matching. Indigo colours were used in printing of textiles. During 1950, some handprinting establishments shifted their process of printing from block to screen. However, the indigo colours continued to be used and the process of steaming did not exist in the area. The entrepreneurs were also facing difficulty in getting fine screens prepared for printing of textiles. About fifteen years back, i.e. in 1965, Prussian colours and steaming were adopted in the process of handprinting of textiles. Screen photography also developed during this period. Since the last three or four years the screens for printing are made out of metallic pipe which are very precise, durable and light in weight.

It is estimated that about 2000 handprinting units, using screen printing method were working in the area in which about 20,000 printers were engaged. Besides, about 2,000 workers were employed for other jobs. About 1,500 persons were

employed in certain ancillary units. A large number of washerman (estimated at 5,000) were also associated with this industry.

As regards the investment in the form of fixed and working capital, it is estimated that the total investment in the industry at this centre is to the tune of about Rs.70 crores. The fixed capital in the form of land and building, equipment and fittings constitutes about 60 per cent while about 40 per cent of the investment is in the form of working capital. The estimated value of annual production of handprinted textiles in Jetpur is Rs.219 crores.

Organization

There are both household and non-household establishments in Jetpur. Almost all the non-household units have been established under partnership. In these units printing workers are recruited from the labour market while unpaid family workers look after supervision etc. The partnership remains confined to the family members only. Thus, in reality, almost all the units are owned and operated on a family basis.

The handprinting industry of Jetpur concentrates on printing of only cotton sarees. As far as the system of production is concerned the establishments may be classified into three categories :

1. Those printing their own cloth,
2. Those printing their own cloth and also undertaking work on contract, and
3. Those undertaking work only on contract.

The establishments undertaking job work only are in very large numbers as they do not require large working capital for buying cotton textile. They also do not have to worry about the marketing of their products. This is why in our sample of 30 establishments we found that 28 units (93.4%) were printing textiles for others on contract basis. Only one unit each was engaged in printing own textiles as well as printing for other entrepreneurs and printing only own textiles for marketing respectively. The units accepting job work on contract receive textiles from their customers. They also get screens from their customers for printing designs of their choice.

Raw Materials

The raw materials such as cloth, dyes, chemicals and kerosene-oil are generally purchased from the local market. Since the industry at Jetpur concentrates only on printing of cotton sarees the most important item of cloth used there was grey cloth produced on powerlooms in Maharashtra. The larger handprinting establishments purchase cloth from Bhiwandi, Ichalkaranji or Bombay (Maharashtra). Similarly they procure dyes and chemicals from Vapil, Valsad and Ahmedabad (Gujarat).

Marketing

A substantially large proportion of the establishments in Jetpur were printing textiles for others on contract basis and a small proportion of the handprinting units were producing textiles exclusively for themselves. Some of the units producing for themselves were also printing textiles for others on contract basis. In such a set-up those working for others do not need a showroom. They receive orders from whole-sellers/stockists of handprinted textiles. Some of those who produce for themselves have their showrooms/sales depots in the premises of their handprinting establishments. Some larger establishments however, have their showrooms outside Jetpur and the number of such units would be about twenty. Some establishments also employ travelling salesmen. Handprinted cotton sarees of Jetpur have no scope in the overseas market as the item is produced mainly for the lower and lower-middle classes of the Indian society. Depending on the textiles used the market price of these sarees ranges between Rs.22 and Rs.48. The main markets of the Jetpur product are Bombay, Ahmedabad, Delhi, Kanpur, Calcutta and Madras from where these sarees go to smaller cities and towns.

Technology

The Jetpur handprinting establishments specialise in printing cotton sarees through screen printing method. In an

effort to reduce production cost the screen made from thin film of celloid has been replaced by the screens made out of metallic pipes, which are durable and light in weight. It is estimated that on an average a meter of saree cloth is printed in one and two colours in about 2.34 and 3.32 minutes respectively.

Labour Recruitment

The small establishments use mostly household labour. The middle and large size units employ workers for printing, preparatory and finishing jobs. Some large units also employ office staff. Regular appointment on monthly wages is generally offered to the office staff like Managers, Clerks, Accountants etc. and workers engaged for steaming, dyeing and cutting. Those engaged for printing, washing and pressing are paid wages at piece rate.

It is estimated that about 60 per cent of the workers engaged in handprinting industry of Jetpur belong to the same place and the remaining 40 per cent are in-migrants. Mostly workers do not change their employers and, therefore, the establishments have permanent and dependable workers. In case of requirement for additional workers during the peak season or during the short absence of regular workers the entrepreneurs do not face any problem. The additional workers are recruited from the 'labour market', a place where the unemploy-

ed hand printing workers gather in the morning and from where they are picked up by the entrepreneurs. The system of recruitment is, therefore, direct and no middlemen are involved here. Thus, there is no labour shortage in the area and no trade union exists for workers engaged in handprinting industry of Jetpur.

The printing workers start their work at 8.30 AM, and leave the establishment after printing a fixed number of sarees. In the printing and dyeing work only male workers are employed. The printers are paid on piece rate wages @ Rs.0.60 and Rs.0.65 per saree printed in five colours. Since printing of a saree requires the labour of two workers at a time, an individual worker, therefore, gets 30 paise or 32.5 paise per saree. The wages are paid on a daily basis.

It is estimated that the monthly income of printers varies between Rs.150.00 and Rs.800.00 depending upon : (a) the size of establishment they work in; (b) the quantum of printing done by them; (c) the quality of printing; and (d) the level of the skill of the printers. The more skilled workers working in large establishments are able to earn between Rs.600/- and Rs.750/- per month during winter and summer seasons.

Problems and Issues

In order to formulate policies and programmes for the development of handprinting industry so as to utilize its

employment advantage, a number of issues needed examination.

The more important of these issues were :

1. Does the industry have potential for growth ? Whether the entrepreneurs were hopeful of their future in the light of overall conditions of the industry as well as the policies and programmes of the Government ?
2. What is the magnitude of the relative employment advantage of the decentralised sector such as the handprinting industry ? How does the efficiency enhancing change in technology affects this advantage ?
3. Given that the handprinting units are more or less household establishments, what is the difference in the distribution of earnings between the household workers and non-household workers ?
4. Whether there is sufficient skilled labour to fulfil the requirement of the industry ? Whether the employer-employee relations are cordial and workers feel satisfied with their working conditions ? Whether the industry encourages artisans to become entrepreneurs ?
5. Whether the working conditions are such which help them live in satisfactory conditions ? Whether the industry attract the workers to stay on in this important craft or compel them to move to other occupations or places ?
6. Whether the establishments with different systems of production have differences in costs and margins of profit on production ?

The Sample

The present study is based on the responses of 30 entrepreneurs and 75 non-household workers associated with the handprinting industry. Both the samples were selected through the random selection method. The entrepreneurs were interviewed at their establishments and the workers at their residence. The two groups of persons were interviewed through separate interview schedules.

The ownership of only one establishment was proprietary and that of 29 units partnership. The partnership was, however, restricted to the household members of the entrepreneurs. Thus, in reality all the units were family owned. The selected establishments were established by their present owners between 1961 and 1980. Out of them only one entrepreneur belonged to a family of wage earning printers. This suggests that the chances of artisans becoming owners and entrepreneurs are very limited because the amount of capital needed to establish a unit is difficult for them to manage. However, the industry has potential and attraction for entrepreneurs as all the selected units were established by their present owners and none of them had inherited it.

All the thirty establishments selected for study were registered with the Municipality as shop and commercial establishments.

The Entrepreneurs

About three-fourths of the entrepreneurs were young. An overwhelming majority (73.3%) were in the age group 21-35 years and only 23.3 per cent in 36-50 years age group. All the entrepreneurs in the sample were literate. A majority of them (63.3%) were matriculates, 10 per cent graduates and about 23 per cent were educated upto senior basic level. Of the thirty respondents 29 were Hindus and One Muslim. Among the Hindus Patels, Khattris and Banias constituted the major caste-group. About three-fourths (76.7%) of the entrepreneurs belong to Jetpur itself and the remaining 23.3 percent of the respondents have their native places in other parts of Gujarat state.

About half of the entrepreneurs (46.7%) started their career with the present activity. About one-third (33.3%) were salary/wage earners in other occupations whereas 20 per cent were engaged in trading/business activity prior to establishing handprinting units. None of the entrepreneurs had any other source of income apart from the handprinting units which they were running.

The size of families of a large number of entrepreneurs was medium, i.e. between six and ten members (63.3%), about 17 per cent had more than ten members and 20 per cent had five members or less. The average size of family was 7.7. Out of a total of 230 members of the entrepreneur households 42 (18.3%)

were working in their own handprinting establishments, in supervisory capacity.

I : HAND PRINTING ESTABLISHMENTS

Capital and Earnings

The selected handprinting units were established in two ways. In the first category were such units which were established by their present owners by investing capital for fixed assets like land, buildings and equipment, while in the second category were units which were acquired by the entrepreneurs on monthly rent from their owners. The investment in the form of fixed capital in these latter units was thus confined to transport and some fittings and fixtures. Out of the 30 units selected for the study 10 were acquired on rent by the entrepreneurs. Among them only 4 establishments show some investment in fixed assets. Their average fixed capital comes to Rs.33,750 per establishment. The average fixed capital per unit in the first category of establishments was significantly higher, i.e. Rs.3,13,890 because of investment in land, building, equipment and other assets. The units acquired on rent had a higher working capital than those owned by their entrepreneurs. The average working capital per establishment of those acquired on rent was more than double (Rs.1,65,472) the amount of working capital of the units owned by the entrepreneurs (Rs.77,500). The size of working capital increased in absolute terms with

the increase in the size of establishment as indicated by the number of printing tables. However, relative to the number of printing tables there were obvious economies of scale.

A similar trend has also been found with regard to investment of fixed capital. Table 1 indicates the indices of average fixed capital per establishment and per printing table. The table shows a rise in the fixed investment with the rise in the size of establishment. The average fixed investment per printing table shows a steady decline as the size of handprinting units increases. This suggests that it is economical to expand the size of the handprinting establishments.

Table 1 : Average Fixed Capital According to the Size of Establishments*

Size : No. of Print- ing Tables	Fixed Capital				Index of average fixed capital (Estab- lishments)	Index of ave- rage fixed capital per printing table
	Land and build- ing	Equipment and Tools	Other Assets	Total		
3-5	2,14,091	51,518	20,000	2,85,909	100	100
6-8	2,41,667	81,667	26,300	3,49,633	122	70
9-12	2,65,000	90,000	22,500	3,77,500	132	54
13 +	3,50,000	90,000	35,000	4,75,000	166	49
TOTAL	46,85,000	13,30,000	4,57,800	64,72,800		
Average per unit	2,34,250	66,500	22,890	3,23,640		

* Data relates to 20 units only as the remaining 10 units were acquired on rent by the entrepreneurs.

Table 2 shows that the relationship between annual earnings and size of the establishments has been found to be positive, except in case of earnings of the units having largest number of printing tables, i.e. 13 and above. This may be due to the fact that the capacity of the three units with 13 or more printing tables was seriously under utilized. In fact two of the units showed very low earnings. In one case it could not continue its activity for the entire year because of some family dispute. In the other case the entrepreneur had given it to some other person on hire for a short period of five months and had reacquired it only during the last seven months of the year. Even then the earnings per establishment as well as earnings per table in this category were much higher than in the two lowest categories. One significant point that emerges from Table 2 is that the rate of increase in annual earnings of the units is higher than the rate of increase in the number of printing tables.

Table 2 : Average Earnings of Establishments According to Their Size

SIZE : No. of printing tables	Average annual earnings	Index of average annual earnings per establishment	Index of average earnings per print- ing table
3-5	54,533.33	100	100
6-8	1,11,500.00	204	118
9-12	2,50,000.00	458	189
13 +	1,23,333.33	226	147

Growth of the Industry

To find out the rate of growth in the size of handprinting establishments at Jetpur we have analysed data pertaining to : (a) the stock of equipment; (b) position of employment; and, (c) production over three periods of time, i.e. 10 years back, 5 years back and last year. The data on production is indicated through the value of sales of the products as the entrepreneurs were unable to supply us information about the quantity of production.

The main equipment in the handprinting establishments includes printing tables and screen plates. The number of printing tables indicate the size of the unit or the printing capacity of the establishment. The number of screen plates is not directly related to the printing capacity but it gives an idea of the size of stock of an important printing equipment. Table 3 presents a picture of growth in the stock of equipment maintained by the selected establishments during a period of ten years.

Before we analyse Table 3 we may point out that the comparison between the position of stock of equipment 10 years

back and the subsequent periods is difficult because in the sample of 30 units only 3 existed ten years back. Out of these three units one had a large establishment with 14 printing tables. Due to this factor a higher average number of printing tables and screen plates was recorded in the said period.

Table 3 : Stock of Equipment Per Establishment

Equipment	Period (Number)		
	10 years back	5 years back	Last year
Printing Tables	7.67	6.18	6.63
Screen Plates	76.67	48.43	121.57

The position of stock of equipment 5 years before and last year indicates an insignificant expansion in the size of establishment as the increase in average number of printing tables per handprinting unit during a period of five years was only 7.3 per cent. However, the increase in the average number of screens per establishment during the same period was considerable, i.e. 151.0 per cent. Such a position suggests that : (a) the entrepreneurs were concentrating more on greater utilization of printing capacity which is indicated by the rise in production/sales that we will discuss later; (b) there is a greater tendency towards printing textiles in varied designs and in many colour shades now than earlier as suggested by the increasing stock of screens; and, (c) the efforts of

the entrepreneurs were probably to limit their capital expenditure and compete with other handprinting units as well as establishments in the organized sector by using varied designs and larger number of colour shades. New multi-colour designs have greater attraction for dealers of printed textiles.

The position of stocks of equipment of different categories of establishments is presented in Table 4.

Table 4 : Stock of Equipment of Different Types of Establishments (Average Per Establishment)

Type of establishment	Printing tables	Screen plates
Work for others	6.54	115.96
Work for themselves	8.00	200.00
Work for themselves and others	8.00	200.00
TOTAL	6.63	121.57

Table 4 indicates that the handprinting establishments which process their own raw materials or those who print their own textiles for sales alongwith textiles of other entrepreneurs on job basis have larger printing capacity than those who undertake job work only. The growth in size of the establishments in terms of printing tables has been higher in the case of units engaged in printing their own textiles as well as of other entrepreneurs. The average number of printing tables per unit has increased by 60 per cent last year from

the average number of printing tables of five years back. The position of the establishments who work for themselves only has remained the same during the period. However, those engaged in job work have recorded some improvement in their printing capacity. From an average of 6.15 tables per establishment they now own an average of 6.54 printing tables, i.e. an increase of 6.3 per cent during a period of five years. However, the increase in the average stock of printing screens last year against the stock five years back has been highest in the units engaged in printing their own textiles (300.0%) than those who undertake job work only (155.3 %) or who work for themselves as well as for others (60.0 %). This is because the establishments which process their own raw materials have to provide more variety in designs than others as they have to compete with entrepreneurs who get their textiles printed by a number of small establishments on job basis. Naturally, the latter have an advantage of varied designs and shades used by different units than those who work for themselves only.

We have noticed earlier (Table 3) that there has been very slow progress with regard to addition of printing tables at different points of time. However, the per shift printing capacity recorded shows a significant improvement in the capability of establishments to print more textiles. For example, all the three units that existed 10 years back consistently improved their printing capacity per shift. Two of them having

a printing capacity between 1001-2000 meters 10 years back increased their capacity to over 2000 meters 5 years back which recorded a further increase last year. The remaining unit with a printing capacity of upto 500 meters per shift 10 years back was able to print between 501-1000 and 1001-2000 meters 5 years back and last year respectively. Five years back about 61 per cent of the establishments had a capacity to print textiles upto 1000 meters per shift. Last year 80 per cent of the units had a capacity to print over 1000 meters of textiles in one shift. This included about 33 per cent of the units printing more than 2000 meters of textiles per shift as against about 18 per cent of units five years back and 'none' 10 years back. This strengthens the possible conclusion drawn earlier that the entrepreneurs were concentrating more on the capacity utilization of their units which was made possible by the increase in demand of the handprinted textiles.

Employment Growth

A total number of 791 workers were engaged in the selected thirty establishments of Jetpur. Out of them 38 were household workers who were designated as Managers. Among the non-household workers 51.66 per cent were printers, 43.16 per cent workers in allied activities such as washing, cutting, steaming, pressing etc. and 5.18 per cent were in administrative/office jobs. Thus, the average number of workers per unit comes to 22.93 (1.40 household and 21.53 non-household workers per establishment).

Table 5 : Average Employment Per Establishment During the Last Ten Years

Type of worker	Average employment		
	10 years back	5 years back	Last year
Household	1.00	1.25	1.40
Non-Household	8.66	8.55	21.53
TOTAL	9.66	9.80	22.93

The data presented in Table 5 shows that the rise in employment in these units has been mainly in the category of non-household workers. During the last 10 years the increase in average employment of non-household workers per establishment has been to the extent of 148.61 per cent against 40 per cent rise in the employment of household workers. Among the total workers the rise in employment was significantly higher during the last five years than during the earlier period of five years. The average employment in the latter period recorded an increase of 133.98 per cent while the employment position five years back shows an increase of only 1.45 per cent.

10993.

The rise in employment last year may be because of two factors : (i) the rise in employment of workers for allied jobs such as washing, steaming and pressing which used to be done outside the establishment were now being done by workers engaged on full time basis by the establishments. Through this arrangement the entrepreneurs have full control over the work

schedule; (ii) the concentration by entrepreneurs on maximum utilization of capacity of their units. These changes have enhanced the employment potential of the industry at a faster pace during 'the last five years' period. The rise in employment and the changes in the organization of production processes indicate that the demand for handprinted textiles was growing significantly.

Production

As indicated earlier the handprinting industry at Jetpur specialises in printing cotton cloth for sarees. In our sample, all the units were, therefore, printing cotton sarees. We have not found any shift with regard to items of production during the last ten years. The quantum of sales which indicate the quantity of production as well as demand of the hand printed sarees had increased during the last ten years. The rate of increase was higher during the last five years as compared to the earlier period of five years. The rise in the average production per establishment last year was 112.35 per cent over the average production per unit ten years back. The increase in the average output per handprinting unit five years back was 36.20 per cent over the period of ten years back and it was 55.91 per cent last year over the period of five years back. This further strengthens our earlier conclusion that the entrepreneurs were concentrating on maximum utilization of capacity of their units especially during the last five years.

An analysis of the sales of the textiles printed in the selected establishments shows that the increase during the three periods of time, i.e. 10 years back, 5 years back and last year, has been consistent. However, the pace of increase has varied during different periods and for different types of establishments. Table 6 presents these variations.

Table 6 : Growth of Sales of Different Types of Establishments During the Last Ten Years

(Average sales in Rs.)

Period	Types of establishments		
	work for themselves	Work for themselves and others	Work for others
10 years back	-	-	44,000
5 years back	1,00,000	2,00,000	53,000
Last year	3,00,000	3,00,000	78,679

The data shows that the output of all types of establishment increased over the years. However, the increase in production (as indicated by sales) of the units in the category of 'work for themselves' was significantly higher than the hand-printing units under the other two categories. Since none of the selected establishments under the categories of 'work for themselves' and 'work for themselves and others' were established during the analysis period of 10 years back the comparison of output with regard to that period could not be made.

The rise in production of the handprinting establishment under the category of 'work for others' shows an increase of 78.82 per cent in sales last year over the sales 10 years back. The rate of increase in their output was relatively slow during the first five years when sales increased by only 20.45 per cent. However, the pace of production improved during the next five years as the rise in average sales last year over the period of five years back was 48.45 per cent. The comparison of performance of other types of establishments for this period, i.e. last years' over the period of five years back, indicates the highest rise in production of those units who work for themselves (200.0 per cent) while the rise in output of those who work for themselves as well as for others was almost similar to those who work for others only (50.0 %).

The data show that the handprinting units engaged in printing cotton sarees by purchasing textiles or those who were printing their own textiles as well as accepting job work from other entrepreneurs were the larger establishments. For example, they had a higher average number of printing tables (8.0) and also printed more Sarees. The average number of non-household workers was also higher in these units i.e. 28 and 35 in units under the categories of 'work for themselves' and 'work for themselves and others' respectively. These establishments expanded at a much faster pace than those engaged in job work only. The higher rate of growth of the

units who work for themselves was due to the fact that : (a) these units had larger financial resources with them; (b) they were marketing their products directly to the dealers; (c) they were independent and, therefore, their main source of strength was the increasing demand of handprinted textiles in the market, and (d) they did not depend on job work from the dealers/wholesellers and other handprinting units.

Future Prospects

All the 30 entrepreneurs expressed satisfaction over the level of progress of their business. This suggests that the handprinting industry of Jetpur was working satisfactorily and had potential for further growth in the future. Among the major reasons listed for hopeful future of the industry were: availability of skilled labour, promising market for their products, government assistance in getting a suitable work-site/shed, availability of raw materials and finances. It is worth mentioning that although the size of the establishments, in terms of number of printing tables possessed, of only a few of the selected units had increased during the last five years yet there has been a significant improvement in the per shift printing capacity of a large majority of the units. Five years back about 61 per cent of the establishments had a capacity of printing textiles upto 1000 meters per shift while last year 80 per cent of the units had a capacity to print over 1000 metres of textiles.

Most of the selected entrepreneurs (86.7 %) showed their keenness for expanding the scope of their business. However, they were apprehensive of certain difficulties in expansion. The anticipated problems related to finances, raw materials, competition in the market and expansion of work space. To overcome these difficulties, a majority of the entrepreneurs had either initiated some steps or were planning to move for solving their problems, particularly of finances, work space and the market. The finances were being arranged by mobilizing own resources by reinvesting profits as well as securing loans from institutional sources - for meeting requirements of working and fixed capital. Markets outside Gujarat State were being explored and job work from small traders was accepted. During the shortage of some of the raw materials alternative materials were used.

The entrepreneurs were also asked to extend their suggestions as to how the industry can be developed at a faster pace and what should be done for economising production and enabling workers to earn higher wages. As regards the protection of interests of the handprinting industry the entrepreneurs suggested that the government should take greater interest in protecting the handprinting industry by : (a) making available finances through the State Finance Corporation; (b) giving subsidy to small establishments for expanding their printing capacity; and (c) protecting the handprinting indus-

try from the threats of the organised sector by imposing certain restrictions on them. In addition they also felt there was a great need of organization and unity among the entrepreneurs for maintaining uniform printing rates.

Regarding economising production they also suggested that government assistance in making available necessary raw materials in sufficient quantity at controlled price can, to a large extent, reduce the cost of production. Besides, they also expressed the necessity of research in improving the quality of dyes and chemicals so that prints on textiles dry down quickly.

For improving the earnings of printers the entrepreneurs suggested that : (a) the workers should concentrate more on neat and clean work; (b) there should be stability of jobs for them so that they can feel more responsible for quality of printing; (c) the improvement in the quality of dyes and chemicals that are able to dry quickly, will help them print a larger quantity of textiles and earn higher wages; and (d) a little more hard work will certainly benefit them with more wages.

Markets and Marketing Systems

Out of the thirty selected handprinting establishments 28 were working only for others on job basis and one of the remaining two units was also undertaking job work besides print-

ing own textiles. Thus, almost all the units were providing services to dealers of handprinted textiles or other handprinting units.

In our sample, none of the handprinting establishments was directly exporting its textiles to any foreign market. The unit engaged in printing textiles entirely through its own materials was selling its products to wholesalers/stockists of handprinted textiles. The other establishment in the category of 'work for themselves and for others' was also selling its own product to wholesalers/stockists. The quantum of production of own materials constituted about 70% of its total output. The remaining 30 per cent of the production was reported as job work from dealers of handprinted textiles. Of the 28 units undertaking job work 27 were getting work entirely from stockists/wholesellers while the remaining establishment was getting approximately 80 per cent of work from wholesalers/stockists and 20 per cent from other handprinting establishments. Thus, none of the units was undertaking job work from retailers.

The designs printed on textiles are not generally developed for each and every job work received by the establishments. The designs are either used from amongst the existing ones, with variations in colours (90%), or the design screens are supplied by customers (86.67%). One unit working for others on job basis followed the practice of developing new designs

for its customers if they placed bulk orders. The unit under the category 'work for themselves' frequently changed its design patterns for attracting customers.

We were told that about twenty handprinting establishments of Jetpur had their show rooms outside the town, mostly at Ahmedabad. In our sample, however, none of the units reported having its show-room outside Jetpur. Since most of the units carry out job work they do not employ touring salesmen. However, some establishments printing their own textiles for sales do employ salesmen who tour different markets of the country and secure orders for their products. The main markets for Jetpur handprinted textiles are Bombay, Ahmedabad, Delhi, Kanpur, Calcutta and Madras. Stockists and wholesalers of these markets also place orders for their specific requirements and these orders are carried out by the establishments engaged in job work. However, a larger amount of job work is received by the units directly from the traders/stockists of Ahmedabad and other larger markets who visit these establishments and place orders for their specific requirements.

Competition

We tried to find out whether the handprinting units of this centre were facing competition, and if so, from what type of establishment. From the responses of the selected respondents we found that all the units were facing competition

in the trade. The entrepreneurs also indicated the extent of their competition with different types of enterprises. The ranks assigned to the four types of establishments engaged in handprinting of textiles indicate their level of importance in the competition. The ranking of competitors has been presented in Table 7.

Table 7 : Ranking of Competitors

Competitors	Ranks		
	I	II	III
1. Smaller than own	-	-	3 (10.00)
2. Similar to own	1 (3.33)	10 (33.33)	19 (63.34)
3. Larger than own	28 (93.34)	1 (3.33)	-
4. Modern enterprises	1 (3.33)	19 (63.34)	8 (26.66)
TOTAL	30 (100.00)	30 (100.00)	30 (100.00)

Note : Figures in brackets represent percentages.

It is evident that all the entrepreneurs were facing competition from three types of establishments. All the respondents reported competition of varying intensity from establishments similar to their own followed by 96.67 per cent and 93.33 per cent with units larger than their own and modern enterprises respectively. However, the main competitor in

terms of ranking were the establishments larger than own (93.34%). Among the competitors placed in second rank the main establishments were in the category of modern enterprises (63.34%) while a similar proportion of the units in the category of 'similar to own' was placed in the third rank. Thus, the competition was primarily confined among the local hand-printing units and almost every entrepreneur (93.3 %) felt threatened from the establishments which were larger to his unit.

Since 28 out of 30 units were facing competition mainly from the establishments larger than their own there remained only two units which felt otherwise. Among these two, one was the smallest establishment in the size category of 3-5 printing tables which was facing competition from units similar to its own size. The other unit in the size category of 6-8 printing tables was facing competition mainly from modern enterprises.

From the pattern of production of the industry and the responses recorded in respect of competition we may say that like other centres the competition in the industry at Jetpur is not very tough. The only item that was printed there was cotton sarees and this item has continued over a long period of time. If there had been a tough competition the entrepreneurs would have preferred to shift to other items. Such a

change has not occurred and, therefore, we may presume that the competition among various size units was not tough.

Employment Structure

A total number of 791 full-time workers were engaged in the selected thirty establishments. Among them only 38 persons, designated as Managers, were from the families of the entrepreneurs and, therefore, were treated as unpaid family workers (Table 8). There were no women workers in any of these units. About 9.7 per cent of the workers were in different administrative categories of whom about half (50.65%) were classified as Managers. Out of the 39 Managers only one was a non-household worker. The number of Managers exceeded the number of selected units because most of the larger establishments employ more than one Manager. Besides supervision of printing, the job of a Manager in most of the handprinting establishments also carries responsibilities such as procurement of raw materials, marketing, maintenance of accounts, cutting of the printed cloth in required sizes, packing of the finished products etc. The rest of the workers in the administrative category consisted of clerks and peons. All these workers were paid non-household employees.

As in the administrative category the selected establishments had no woman worker in any of the production processes. Thus, all the 714 non-household workers engaged for different

Table 8 : Workers Engaged in Establishments

Process	Hired Labour			Unpaid Family Labour			Total	
	Men	women	Total	Men	women	Total	Men	women
A. ADMINISTRATIVE								
Manager	1	-	1	38	-	38	39	-
Clerk	36	-	36	-	-	36	36	-
Ministerial	2	-	2	-	-	-	2	-
B. WORKERS								
Washing	155	-	155	-	-	-	155	-
Cutting	27	-	27	-	-	-	27	-
Printing	389	-	389	-	-	-	389	-
Steaming	33	-	33	-	-	-	33	-
Pressing	84	-	84	-	-	-	84	-
Others	26	-	26	-	-	-	26	-
TOTAL	753	-	753	38	-	38	791	-

types of jobs were male workers. Among them 54.48 per cent were printers while about 45 per cent of workers were engaged in allied jobs on a regular basis. The number of workers in allied processes was significantly large in the selected units of Jetpur as compared to the units of other centres. The practice at this centre is to engage workers for these processes also on a regular basis, though they are paid at piece rate. This is considered 'safe', 'convenient' and 'reliable' by the entrepreneurs.

Labour Cost and Wage Rates

The share of printers in the cost of production has been calculated on the basis of average cost of printing of cotton sarees. The cost shown in the column titled labour (Table 9) indicates the average wages paid to printers for printing this item in multiple colour shades whereas cost of other processes indicates wages paid to labour for preparatory and finishing jobs.

Table 9 : Average Cost of Production of a Unit (Rs.)

Item	Dyes and Chemicals	Other Processing	Labour	Other cost	Total
Saree Cotton	4.73	1.25	0.90	0.98	7.86

The cost of the cloth has been excluded as its value varies with the quality used. The variations in labour wage occur

due to a number of reasons, e.g. (a) the quality of the product, (b) the number of colour shades used in printing, and (c) the quantity of textiles printed by the worker. The share of printers in the cost of production was found quite low at this centre, i.e. only 11.45 per cent. In comparison, the share of the household workers was 51.44 per cent of the total cost. However, despite the low share, it seems the quantum of printing done by the printers was considerably large as during busy seasons they were able to earn between Rs.25/- and Rs.30/- per day.

The entrepreneurs reported that in an average year about 57 per cent of their workers earned a monthly wage of over Rs.400/-, about 33 per cent received in an average between Rs.300-400 p.m. and only 10 per cent of the printers earned below Rs.300/- p.m. According to their estimates the minimum average monthly wages paid to printers were Rs.271/- and the maximum Rs.759/-.

Labour Supply

The peak season and its duration was significantly longer as 29 out of 30 selected entrepreneurs reported their busy season from October to June, i.e. nine months in a year. The remaining one unit was doing brisk printing during February and April. This suggests that the printing work was affected only during the peak rainy season, i.e. from July to September. The busy period of nine months in such a large number of enter-

prises was an indication of a large quantity of textiles printed at Jetpur. This obviously results in greater demand of printers during the peak period.

About 47 per cent of the entrepreneurs reported that their requirement of labour during the peak season increased significantly. Among them a large proportion of the entrepreneurs (64.29%) had small establishments of 3-5 printing tables followed by 21.43 per cent with 6-8 printing tables. This suggests that the smaller units generally engage a very limited number of printers on a regular basis and, therefore, they engage workers according to the quantum of work available with them. The requirement of more workers is met by hiring more non-household labour from the local labour market. The entrepreneurs do not face any difficulty in getting additional hands. Due to availability of printers in the labour market the wage rates also do not change during the peak season.

The problems of labour turn-over and absenteeism among workers were not reported by any of the entrepreneurs. The easy availability of printers in the local labour market, absence of the practice of paying higher wages during peak season, non-existence of the problems of labour turn-over and absenteeism suggest that there was a large surplus of printers in the area. However, to keep workers satisfied the entrepreneurs offer them some incentives as all the respondents reported that they were paying bonus as well as advances to

their workers. About 47 per cent of the entrepreneurs also said that they also give clothes to their workers.

II : EMPLOYMENT, EARNINGS AND LIVING CONDITIONS OF WORKERS

In the earlier pages certain aspects relating to the conditions of handprinting workers were also described. They were based on the information supplied by the entrepreneurs. In the following pages, an attempt has been made to describe in detail the working and living conditions of workers engaged in the handprinting industry of Jetpur. In all, seventy-five workers were interviewed through a separate interview schedule. However, the information about seventy-three workers was analysed as the responses of two respondents were not found consistent. The purpose of these interviews was to understand the background of the workers, the employment position in the industry, service conditions, pattern of employer-employee relations and conditions of living of the workers of this centre.

Some General Characteristics

Over half the workers were young as about 56 per cent of them were in the age group of upto 30 years while over one-fourth (26.83%) of them were in the age group of upto 20 years. The remaining 44 per cent of the workers were, therefore, in the age group of 31 years or more. Among them half of the

workers were over 40 years of age. The literacy rate was significantly higher among the workers of this centre as only about 6.9 per cent of the respondents were illiterate. Nearly two-thirds of the workers (63.01%) had studied till the primary and about one-fourth (24.7 %) till the middle level. Three of the selected workers (4.1 %) had passed High School while one was a graduate. Nearly four-fifths (78.1 %) of the workers were Hindus and 21.9 per cent Muslims. About one-fourths (24.7 %) of the selected workers were associated with the handprinting industry for a period of upto five years, 39.7 per cent were in this industry for periods ranging from 6 to 10 years, 17.8 per cent for 11-15 years and an equal proportion of workers had been in handprinting for over 15 years. All the workers were working in Karkhana type nonhousehold establishments as casual workers on piece rate wages. A large majority of the selected workers (95.9 %) came from families with occupations other than handprinting. Thus, only about 4 per cent of workers were carrying out this job on a hereditary basis. Only 3 of the workers had taken-up some other job prior to joining handprinting. They worked with some dealers of textiles for a short duration of upto two years and left them in the hope of better earnings in handprinting jobs.

As regards the average monthly earnings of workers from handprinting work we find that nearly half of them (49.3 %) were earning more than Rs.300/-, about 41 per cent were earning

between Rs.201/- and Rs.300/- and 9.59 per cent were getting upto Rs.200/- per month. The average monthly wages of the selected workers comes to Rs.342.12.

Employment and Unemployment

The insecurity in employment throughout the year is the most important problem that the handprinting workers face. Since the handprinting activity is seriously influenced by climatic changes it cannot be continued with equal intensity in every season. Thus, the demand for workers varies from season to season and it is not certain that every regular worker of a handprinting unit will get work every day of the year. With this in view we asked the workers to estimate the number of days they get employment in a month during different seasons. The responses are presented in Table 10.

Table 10 : Days of Employment in a Month During Different Seasons

Season	Days of employment in a month			Total
	Upto 15	16-21	22-27	
Summer	4 (5.48)	7 (9.59)	62 (84.93)	73 (100.00)
Rainy	26 (92.86)	-	2 (7.14)	28 (100.00)
Winter	2 (2.74)	4 (5.48)	67 (91.78)	73 (100.00)

Note : Figures in brackets denote percentages.

As we see the employment situation was worst during the rainy season. The majority of workers (61.64%) were not able to get much work during this season. Even among those who were lucky to get some work, about 93 per cent stated that they generally get work only for a maximum period of fifteen days a month. Thus, only about 7 per cent of workers were able to get employment through out the rainy season. We further analysed the data to see if those who get work for a lesser number of days a month in the rainy season are able to get work for the full day of employment. We found that none of the workers was able to get a full eight hours of employment in a day. Among them 84.6 per cent of workers informed that on the days of employment during the rainy season they received work which engaged them only for 4-5 hours while 11.5 per cent of workers received work which engaged them only for three hours or less per day. In comparison, only one worker reported receiving slightly less work (for 6-7 hours a day) during summer season. Thus the earnings of workers during rainy season are affected by : (a) fewer number of days of employment; and (b) small quantum of work available even during the days of employment.

Earnings

Due to shortage of work during the rainy season the regular earnings of workers through out the year remained uncertain. There was no evidence of workers getting lower rates of wages

during the lean period but their earnings remained significantly low as compared to the earnings during summer and winter seasons. The reasons are obvious, i.e. the workers get work during the rainy season for a significantly shorter number of days per month and even on the days of employment non-availability of full day's work further affected their earnings. Besides, there was no scope for over-time wages.

The average monthly earnings of workers during summer and winter seasons were almost uniform, though an indication of a larger number of workers earning higher wages during winter was found. The decline in earnings during rainy season was significant. For example, three-fourths of the workers who were able to get employment during rainy season were able to earn wages upto Rs.100/- per month while no one earned such low wages during summer and winter seasons. About 7 per cent of workers were able to earn between Rs.101-200 p.m. during the lean season as against about one per cent of workers in other seasons. Thus, about 18 per cent of the workers earned over Rs.200/- per month during the rainy season as against about 99 per cent of workers earning similar wages during the peak months of summer and winter.

The effects of the rainy season on the handprinting industry in general and the printing workers in particular are very serious. The gravity of the suffering of workers may be visualised from the fact that a majority of workers (61.64%) gene-

rally, do not get any work. During this period most of them seek work elsewhere as labour.

Table 11 : Monthly Wages of Workers During Different Seasons

Season	Monthly Earnings (Rs.)					Total
	Upto 100	101-200	201-300	301-400	401 & above	
Summer	-	1 (1.37)	1 (1.37)	33 (45.21)	38 (52.05)	73
Rainy	21 (75.00)	2 (7.14)	3 (10.72)	1 (3.57)	1 (3.57)	28*
Winter	-	1 (1.37)	1 (1.37)	30 (41.10)	41 (56.16)	73

* 45 respondents reported unemployment during rainy season.

Note : Figures in brackets represent percentages.

The average monthly earnings of a worker comes to Rs.342.12. The average monthly earnings varied from season to season. They were lowest during rainy season (Rs.106.86) and highest in winter season (Rs.495.63) while during summer months the workers earned an average of Rs.469.79 per month. Thus, the average monthly wages earned during rainy months were 22.75 per cent and 21.56 per cent of what they earned during summer and winter months respectively. The earnings during winter months were higher by 5.5 per cent from the earnings of summer months.

In an effort to improve their earnings most of the workers work for more than eight hours during the peak seasons of summer

and winter. A few workers (6) tried to improve their meagre earnings from the handprinting jobs by engaging themselves in other activities. Two of them had some agricultural land which supplemented their income to the tune of Rs.101-200 per month while the remaining four workers had some petty business which helped them to earn upto Rs.100 per month. However about 33 per cent of the workers reported that they were compelled to take-up some work during rainy season, mostly as labour which enables them to earn upto Rs.200 per month.

All the selected workers reported that their average monthly wages from the handprinting job had increased during the last five years. The enhancement had been mainly due to upward revision in wage rates and partly due to availability of more work during the peak season. The average monthly earnings (including over-time wages) were Rs.199.57, Rs.256.59 and Rs.342.12 five years before, three years before and at the time of investigation respectively. In comparison with the earnings five years before, the average monthly earnings of workers had, therefore, increased by 28.57 per cent two years later and by 71.43 per cent at the time of investigation. On an average, the increase in earnings of handprinting workers during the last five years has, therefore, been at the rate of about 14.3 per cent per year.

About four-fifths (80.8 %) of the selected workers expressed their intention to continue in their present occupation of handprinting despite the fact that about 88 per cent of the workers felt that there were no opportunities for advancement in the present job. The reasons behind their pessimism were given as : (a) printers always remain printers (53.12%), and (b) printers remain casual workers and there was no chance of getting regular employment (46.88). However, most of the respondents (90.41%) were hopeful that their training in handprinting will get them a similar job elsewhere easily, if they desire to change their employer.

Employer-Employee Relations

The employer-employee relations were found to be satisfactory as every one of the respondents' termed his relationship with his employer as 'harmonious'. To a question 'whether they were satisfied with their job' a majority of them (54.8%) responded in the negative. The reasons given for such a feeling included : no chance of progress (72.5 %), uncertain income throughout the year (50%), nature of work is injurious to health (50%) and hard labour (45%). On a specific question relating to the employers' attitude towards the needs of their workers a majority of the respondents expressed the view that their employers have an indifferent attitude towards fringe benefits, medical care, leave and loans and advances. The pattern of their responses are presented in Table 12.

Table 12 : Employers' Attitude Towards the Needs of Their Workers

Need	Can't say/ No experi- ence	Sympa- thetic	Indi- ffe- rent	Unsympa- thetic	Total (excluding column 2)
1	2	3	4	5	6
Leave	19	8 (14.81)	43 (79.63)	3 (5.56)	54 (73.97)
Advances/Loans	22	9 (17.65)	40 (78.43)	2 (3.92)	51 (69.86)
Fringe benefits	30	1 (2.33)	40 (93.02)	2 (4.65)	43 (58.90)
Medical Care	31	2 (4.76)	38 (90.48)	2 (4.76)	42 (57.53)
Timely payment	2	71 (100.00)	-	-	71 (97.26)

Note : Figures in brackets represent percentages.

As is evident from Table 12, a significant proportion of the workers expressed their inability in expressing their opinions on the attitude of their employers towards some of the needs of workers, mainly because they had no personal experience. Almost all the workers termed the attitude of their employers as sympathetic with regard to timely payment of wages. A significantly large majority of those who expressed their opinions with regard to the attitude of their masters thought the employers were indifferent towards the need of their workers. The pattern of responses of workers seems reasonable if we consider their responses to another question 'whether they get any fringe benefits from their employers' ?

To this question only four workers responded in the positive. Three of them reported having received bonus ranging from Rs.200 to Rs.500 while one had secured advances/loans twice.

Conditions of Living

A large number of families of the selected workers (78%) were of medium size consisting of 4-6 members and about 11 per cent were of small size with upto 3 members. Thus, only about 7 per cent of the families of handprinting workers had seven or more members. Except one, all the workers were living with their families at Jetpur.

The average monthly household expenditure of about 55 per cent of workers on food, clothing, children's education, durable goods, ceremonies, transport and personal services was over Rs.500 and that of about 29 per cent of workers between Rs.401-500. Thus, the monthly household expenditure of nearly 84 per cent of workers was over Rs.400. A majority of the small size families (63.64%) spend between Rs.301-400 per month, while 91.23 per cent of the medium size families spend over Rs.400 and 80 per cent of the large households spend over Rs.500 per month.

The following table (Table 13) indicates the aggregate position with regard to consumption. In an attempt to determine the socio-economic status of this population we present figures of per capita monthly expenditure on consumption items in Table 14.

Table 13 : Size of Family and Monthly Household Expenditure

Family Members	Monthly Expenditure (Rs.)				Total
	Upto 300	301-400	401-500	501+	
Upto 3	² (18.18)	⁴ (36.37)	³ (27.27)	² (18.18)	¹¹ (15.07)
4-6	-	⁵ (8.77)	¹⁸ (31.58)	³⁴ (59.65)	⁵⁷ (78.08)
7 +	¹ (20.00)	-	-	⁴ (80.00)	⁵ (6.85)
TOTAL	³ (4.11)	⁹ (12.33)	²¹ (28.76)	⁴⁰ (54.80)	⁷³ (100.00)

Note : Figures in brackets represent percentages.

Table 14 : Per Capita Monthly Household Expenditure

Family Members	Per Capita Expenditure
Upto 3	179.00
4-6	111.00
7 +	72.00
TOTAL	113.20

By way of clarification it may be mentioned that the per capita household expenditure accounts for only those family members who stay with the worker. The dependents, thus, living away from these families have been excluded even if their full/

partial financial requirements are fulfilled by the respondents. One of the respondents was living at Jetpur alone while his dependents were living at their native place. He has, therefore, been included in the family size group of 'upto 3 members'.

The per capita monthly expenditure of the total sample on consumption items comes to Rs.113.20. It is negatively related to the size of family, i.e. the smallest families had the highest per capita expenditure on consumption items while the largest families were able to spend the lowest per head. On updating the Planning Commission's criterion for determining the poverty line, i.e. a per capita expenditure of Rs.62.00 on private consumption during 1973-74 we find all the five families consisting seven or more members were living below the poverty line.

The expenditure on certain non-food items including entertainment, smoking, alcohol, bhang and tobacco/pan was also enquired into. None of them mentioned any expenditure on alcohol and bhang. Out of these items the highest percentage of workers spent some amount on entertainment. On this item 94.5 per cent of the selected workers spent on an average Rs.15.35 per month. Smoking was the next item on which 79.5 per cent of workers spent on an average of Rs.20.66 per month while 27.4 per cent of workers were spending on an average Rs.20.25 per month on Pan/Tobacco.

An overwhelming majority of the workers (93.2 per cent) reported some expenditure on medical treatment of self or their family members. The average annual expenditure comes to Rs.424.12. The break-up of expenditure on this item indicates that about 37 per cent of workers were spending on an average of upto Rs.200, about 35 per cent between Rs.201-400, about 18 per cent between Rs.401-700 and about 10 per cent over Rs.700 per year. Considering the economic conditions of handprinting workers the amount spent on medical treatment was quite substantial. One can easily understand its serious implications on workers and their health.

Indebtedness

About 43 per cent of the selected workers had incurred debts, mostly for meeting consumption and social needs. A total of 31 workers had secured loans for one or more purposes : medical treatment (23), household expenditure during the period of unemployment (13), marriage in the family (6), housing (1) and family business (1). The main source through which they secured loans was 'relatives' (23), followed by 'friend' (8), money-lender (3) and bank (1).

Nearly 81 per cent of the indebted workers had secured loans of over Rs.1000. Among them 64 per cent of the respondents had obtained loans of over Rs.1500. Among the remaining 19 per cent of indebted workers those who secured loans ranging

between Rs.501-1000 and upto Rs.500 were equally divided, i.e. 9.7 per cent each. Most of the loans secured from relatives and friends were interest free while in a few cases 12% to 24% per year interest was charged. The highest rate of interest (36%) was charged by moneylenders.

A majority of the loans were secured recently, i.e. during the last one year (61.3 %). About 23 per cent of the respondents were indebted for a period of two years; about 13 per cent for three years and about 3 per cent for a period of four years. Such a situation indicates : (a) the poor economic conditions created particularly by the uncertainty of earnings during the months of rainy season; and (b) the poor health conditions of the workers as well as the members of their households which compel a significantly large number of respondents to secure loans. Some of the workers indebted for a considerably long period were not able to repay even a part of the amount of loan.

Housing

Only 22 (30.14%) workers in the sample were living in own houses. Out of them 18 had ancestral houses and 4 had either purchased or constructed their houses themselves. Over two-thirds (69.86%) of the workers were, therefore, living in rented accommodation. On the basis of the amount of monthly rent paid by workers one can easily guess that the accommoda-

tion acquired on rent was not at all satisfactory, at least in case of about 45 per cent of the workers paying upto Rs.20 per month. About 29 per cent of the workers were paying between Rs.21-40 and about 26 per cent over Rs.40 per month.

More than half the families of workers (54.8 %) were living in either fully Kutchha or partly Pucca and partly Kutchha houses. The accommodation in about 46 per cent of houses consisted of a single room. About 34 per cent of the workers' households had two rooms and only about 3 per cent three-room accommodation. Only about 11 per cent of the houses did not have electricity while about 53 per cent had the facility of running water. About three-fourths (75.34%) of the house had neither independent toilet nor separate bath-room facilities.

Conclusion

The growth of handprinting industry at Jetpur which started only in 1930 initially confined itself to dyeing of cloth. Gradually it shifted to block printing. The screen printing technique was adopted by a few entrepreneurs in 1950. However, the use of indigo colours and lack of the steaming process continued to affect the growth of the industry. In 1965 use of prussian colours as well as the process of steaming were adopted. Screen photography also developed during this period. Since the last three or four years film screens have been replaced by screens made out of light metallic pipe.

This development in printing technique has made the handprinting process considerably faster.

The data for this centre was collected between May 1981 and March 1982. It was found that about 2,000 establishments were existing at that time. With these units nearly 30,000 workers were associated. The industry at Jetpur specializes in printing cotton sarees and has a good potential for growth and generation of employment as the Jetpur printed sarees have a market through-out the country. The total investment in the form of fixed and working capital was estimated at about Rs.70 crores of which about 40 per cent was in the form of working capital. The estimated value of annual production of handprinted textiles was Rs.219 crores.

All the 30 establishments in our sample were established by their present owners and only one of the entrepreneurs belonged to the family of wage earning printers. Thus, 29 units were established by those whose family occupation was other than handprinting. The handprinting establishments of Jetpur were facing competition from different types of units. On the basis of ranking of their competitors we find their main competitors were the units larger than their own followed by the modern enterprises. However, all the selected entrepreneurs were satisfied at the favourable market conditions. They were also hopeful of the future of this industry.

The annual earnings of the handprinting establishments tend to increase more than proportionately with increase in the number of printing tables. The earnings of the units engaged in job work were significantly lower than those establishments which have control over the final output. Objectively, support to small household units is very much required. Such establishments need : finances through the State Finance Corporation, subsidy for expanding their printing capacity and raw materials at reasonable rates and in sufficient quantity. Besides certain general suggestions some entrepreneurs also suggested further research in improving the quality of dyes and chemicals so that the prints dry quickly. This will certainly help in increasing the production and the workers will also earn more wages by printing some additional sarees during the same period.

The average employment per handprinting unit recorded an increase of about 137 per cent during the last ten years. The increase in average number of workers per unit has been very high during the period of last five years (134%) as compared to the earlier five years period (1.5%). The increase in the number of non-household workers during the ten years period has been significantly higher (149%) than in the number of household workers. The industry was expanding at a much faster pace now than earlier. This is indicated by the employment of a greater number of workers on the one hand and by employ-

ing a substantial number of full time workers for allied jobs on the other. Besides hired workers, a number of household workers also work in their family's unit. The proportionately low increase in the number of household workers as compared to the increase in the number of nonhousehold workers suggests that the number of household establishments working mainly with family workers was declining significantly. This is another sign of development of the handprinting industry. However, the establishments at Jetpur have the characteristics of a traditional family business in which the wages of the nonhousehold employees are generally very low as compared to the average earnings of the household workers.

The low wages of workers (average Rs.342.12) are due to a number of factors, mainly, (a) the large size of workforce available in the market, (b) lack of bargaining capacity among workers, and (c) lack of alternative employment opportunities. Since there is a large number of surplus printers in the area the workers have to face intermittent unemployment because of nonavailability of sufficient work in the industry. Even the majority of workers regularly engaged in the handprinting units face unemployment during the lean period of rainy season. There is also hardly any scope for alternative employment in the area. There is no trade union of printers with the result the workers have no bargaining power. About 81 per cent of the respondents expressed the need for enforcing labour laws including fixation of minimum wages for handprinting workers.

Although all the workers termed their relations with their employers as 'harmonious' yet on a specific question a large majority of the respondents thought their employers had indifferent attitude with regard to fringe benefits (93%), medical care (91%), leave (80%) and loans and advances (78%). From the responses it is seen that there is a pressing need of extending certain benefits provided under labour laws. The provision of medical care is very much required as a significant number of respondents reported a large amount of expenditure on medical treatment.

About 43 per cent of the selected workers were indebted and a majority of them had secured loans for medical treatment of self or their family members. The period of indebtedness of nearly one-fifths of them was three years or more. Such a situation indicates the weak economic conditions of workers who could not repay the amount of loan in a short period. The living conditions as indicated by the housing condition also suggest their poor economic position as 38 per cent of them were living in fully Kutchha, and another 14 per cent in partly Pukka houses, 46 per cent had only a single room accommodation; 47 per cent of the houses did not have running water, and, three-fourths of the houses had neither an independent toilet nor a separate bath-room.

Thus, the conditions of workers working in the handprinting industry are far from satisfactory. The chances of their becoming entrepreneurs are remote. In the present conditions there is little possibility of improvement in their working conditions. The possibility of provide them regular employment throughout the year is remote. Yet a large proportion of them prefer to stay in this industry as there is no other alternative opportunity of improving their economic conditions in the Jetpur area.

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